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16:10:58 ON 18 DEC 2003)

FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 16:11:18
ON 18 DEC 2003

```
L1       226784 S SCREEN? (P) (COMPOUND? OR DRUG? OR AGENT?)
L2        45204 S SCREEN? (P) (?ARRAY? OR GRID? OR LAWN)
L3         5710 S L1 (6P) L2
L4         5496 S L1 (3P) L2
L5         8524 S PLANT (P) EXTRACT? (P) FRACTION?
L6           13 S L4 (6P) L5
L7           13 DUP REM L6 (0 DUPLICATES REMOVED)
L8         2663 S L3 (6P) ((TARGET? OR PROTEIN?) (P) (ACTIV? OR BIND? OR INTER
L9         2080 S L8 (6P) ((TARGET? OR PROTEIN?) (P) (BIND?))
L10        1168 S L8 (6P) ((TARGET? OR PROTEIN?) (3A) (BIND?))
L11      125119 S SCREEN? (3A) (COMPOUND? OR DRUG? OR AGENT?)
L12         833 S L10 (6P) L11
L13         813 S L12 (6P) (?ARRAY? OR LAWN?)
L14       48767 S (?ASSAY? (3A) (TARGET? OR PROTEIN?) (P) (ACTIV? OR BIND? OR I
L15         317 S L13 (6P) L14
L16      641004 S SCREEN?/AB
L17         134 S L16 AND L15
L18         134 DUP REM L17 (0 DUPLICATES REMOVED)
L19      249381 S ?ARRAY?/AB
L20      252144 S MICROARRAY?/AB OR ARRAY?/AB
L21          22 S L20 AND L18
L22          22 DUP REM L21 (0 DUPLICATES REMOVED)
L23        5049 S ?ARRAY? (3A) (COMPOUND? OR AGENT? OR DRUG? OR MEDIC?)
L24          95 S L15 AND L23
L25          95 DUP REM L24 (0 DUPLICATES REMOVED)
L26          95 S L25 AND L
L27          23 S L25 AND L20
L28          23 DUP REM L27 (0 DUPLICATES REMOVED)

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is

(FILE 'HOME' ENTERED AT 15:18:33 ON 18 DEC 2003)

FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 15:18:53
ON 18 DEC 2003

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L1         11397 S PLANT? (P) EXTRACT? (P) FRACTION?
L2          2788 S L1 (6P) CHROMATOGRAPH?
L3        132021 S SCREEN? (3A) (COMPOUND? OR AGENT? OR MEDIC? OR DRUG?)
L4            53 S L2 (6P) L3
L5            42 DUP REM L4 (11 DUPLICATES REMOVED)
L6           148 S L1 (P) L3
L7            38 S L4 (6P) L6
L8            27 DUP REM L7 (11 DUPLICATES REMOVED)
L9           227 S L1 (6P) (?ARRAY? OR GRID? OR LAWN)
L10           69 S L9 (6P) L2
L11            8 S L10 (6P) L3
L12            8 DUP REM L11 (0 DUPLICATES REMOVED)
L13           21 S L10 (6P) SCREEN?
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FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 15:59:54
ON 18 DEC 2003

```
L14         1305 S SCREEN? (P) (ARRAY? OR GRID? OR LAWN) (P) (COMPOUND? OR DRUG?

=>
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L8 ANSWER 24 OF 27 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
ACCESSION NUMBER: 1998:9379 SCISEARCH
THE GENUINE ARTICLE: YL606
TITLE: The search for biologically active secondary metabolites
AUTHOR: Hostettmann K (Reprint); Wolfender J L
CORPORATE SOURCE: UNIV LAUSANNE, INST PHARMACOGNOSIE & PHYTOCHIM, BEP, CH-1015 LAUSANNE, SWITZERLAND (Reprint)
COUNTRY OF AUTHOR: SWITZERLAND
SOURCE: PESTICIDE SCIENCE, (DEC 1997) Vol. 51, No. 4, pp. 471-482.
Publisher: JOHN WILEY & SONS LTD, BAFFINS LANE CHICHESTER, W SUSSEX, ENGLAND PO19 1UD.
ISSN: 0031-613X.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: AGRI
LANGUAGE: English
REFERENCE COUNT: 30
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB **Plants** provide a rich source of novel biologically active **compounds**. Biological and chemical **screenings** are complementary approaches for the rapid detection and isolation of interesting new **plant** constituents. Biological screening followed by activity-guided **fractionation** has been used successfully in our laboratories for the discovery of antifungal, larvicidal and molluscicidal compounds. High performance liquid **chromatography** (HPLC) coupled to UV spectroscopy (LC/UV), mass spectrometry (LC/MS) and nuclear magnetic resonance (LC/NMR) has proved to be highly efficient for the chemical screening of crude **plant extracts**. In particular LC/MS and LC/MS/MS used with different ionisation techniques such as thermospray (TSP), continuous flow-FAB (CF-FAB) and electrospray (ES) have proved to be very efficient for the early recognition of molluscicidal saponins in Swartzia madagascariensis and Phytolacca dodecandra. The combination of LC/UV/NMR/MS was of great value for the investigation of polyphenols and bitter principles in Gentianaceae species. Among other examples, LC/NMR analysis of the antifungal crude **extract** of the African **plant** Swertia calycina is presented.

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L1	11397	S PLANT? (P) EXTRACT? (P) FRACTION?
L2	2788	S L1 (6P) CHROMATOGRAPH?
L3	132021	S SCREEN? (3A) (COMPOUND? OR AGENT? OR MEDIC? OR DRUG?)
L4	53	S L2 (6P) L3
L5	42	DUP REM L4 (11 DUPLICATES REMOVED)
L6	148	S L1 (P) L3
L7	38	S L4 (6P) L6
L8	27	DUP REM L7 (11 DUPLICATES REMOVED)
L9	227	S L1 (6P) (?ARRAY? OR GRID? OR LAWN)
L10	69	S L9 (6P) L2
L11	8	S L10 (6P) L3
L12	8	DUP REM L11 (0 DUPLICATES REMOVED)
L13	21	S L10 (6P) SCREEN?

FILE 'MEDLINE, EMBASE, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 15:59:54
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L8 ANSWER 23 OF 27 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 1998380438 MEDLINE
DOCUMENT NUMBER: 98380438 PubMed ID: 9712841
TITLE: Primers of glycosaminoglycan biosynthesis from Peruvian rain forest plants.
AUTHOR: Taylor W H; Sinha A; Khan I A; McDaniel S T; Esko J D
CORPORATE SOURCE: Division of Cellular and Molecular Medicine, Department of Medicine, and the Glycobiology Program, University of California, La Jolla, California 92093-0687, USA.
CONTRACT NUMBER: CA46462 (NCI)
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Aug 28) 273 (35) 22260-6.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199809
ENTRY DATE: Entered STN: 19981006
Last Updated on STN: 19981006
Entered Medline: 19980924

AB We have developed a rapid, high throughput **screening** assay for **compounds** that alter the assembly of glycosaminoglycan chains in Chinese hamster ovary cells. The assay uses autoradiography to measure the binding of newly synthesized [35S]proteoglycans and [35S]glycosaminoglycans to a positively charged membrane. Screening over 1000 **extracts** from a random **plant** collection obtained from the Amazon rain forest yielded five **plants** that stimulated glycosaminoglycan assembly in both wild-type cells and a mutant cell line defective in xylosyltransferase (the first committed enzyme involved in glycosaminoglycan biosynthesis). **Fractionation** of an **extract** of Maieta guianensis by silica gel and reverse-phase **chromatography** yielded two pure compounds with stimulatory activity. Spectroscopic analysis by NMR and mass spectrometry revealed that the active principles were xylosides of dimethylated ellagic acid. One of the compounds also contained a galloyl group at C-3 of the xylose moiety. These findings suggest that **plants** and other natural products may be a source of agents that can potentially alter glycosaminoglycan and proteoglycan formation in animal cells.

L8 ANSWER 24 OF 27 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
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THE GENUINE ARTICLE: YL606
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L8 ANSWER 20 OF 27 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2001074844 MEDLINE
DOCUMENT NUMBER: 20481499 PubMed ID: 11025153
TITLE: Isolation of an antibacterial sesquiterpenoid from Warburgia salutaris.
AUTHOR: Rabe T; van Staden J
CORPORATE SOURCE: Research Center for Plant Growth and Development, School of Botany and Zoology, University of Natal Pietermaritzburg, P./Bag X01, 3209, South, Scotsville, Africa.
SOURCE: JOURNAL OF ETHNOPHARMACOLOGY, (2000 Nov) 73 (1-2) 171-4. Journal code: 7903310. ISSN: 0378-8741.
PUB. COUNTRY: Ireland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010104

AB The bark of Warburgia salutaris is used in traditional medicine as an expectorant and smoked for coughs and colds, including a topical application for sores and inflammation. A previous **screening** of South African **medicinal plants** showed that this **plant** had promising antibacterial activity. Subsequently, this endangered tree species was selected for bioassay-guided **fractionation** in order to identify the active principles. **Fractionation** of the ethyl acetate **extract** of the stem bark by **chromatographic** techniques yielded a sesquiterpenoid which exhibited antimicrobial activity against Gram-positive bacteria. The compound, muzigadial, has previously been reported in two other Warburgia species, this being the first time it has been reported from W. salutaris. Muzigadial had minimum inhibitory concentration values ranging from 12.5 to 100 microg ml(-1).

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ACCESSION NUMBER: 1998380438 MEDLINE
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ENTRY MONTH: 199809
ENTRY DATE: Entered STN: 19981006
Last Updated on STN: 19981006
Entered Medline: 19980924

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on STN DUPLICATE 1

ACCESSION NUMBER: 2001275120 EMBASE
TITLE: Separation of crude plant extracts with high speed CCC for primary screening in drug discovery.
AUTHOR: Armbruster J.A.; Borris R.P.; Jimenez Q.; Zamora N.; Tamayo-Castillo G.; Harris G.H.
CORPORATE SOURCE: G.H. Harris, Merck Research Laboratories, Dept. of Nat. Prod. Drug Discovery, P.O. Box 2000, Rahway, NJ 07065, United States. guy_harris@merck.com
SOURCE: Journal of Liquid Chromatography and Related Technologies, (2001) 24/11-12 (1827-1840).
Refs: 16
ISSN: 1082-6076 CODEN: JLCTFC
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB High speed countercurrent **chromatography** (HSCCC) was used in a pre-**fractionation** pilot study to improve the quality of crude **plant** samples for primary **screening** in **drug** discovery efforts. The methanol **extracts** of sixty-four **plant** samples were (i) defatted, (ii) treated with poly-N-vinylpyrrolidone (PVP) for polyphenolic removal, and (iii) **fractionated** with a multilayer coil planet centrifuge. The ternary solvent system CH(2)Cl(2):MeOH:H(2)O (5:6:4, v/v/v) was used based upon elution of known **plant** natural product standards with ranging polarities. Elution was carried out until a partition coefficient (K) of 1, followed by column contents extrusion to exploit stationary phase separation and to increase the polarity range of compounds, **fractionated**. **Fractionation** was found to be consistent for all separated **extracts** with respect to sample recovery, stationary phase **fraction** (S(f)), and weight distribution by **fraction** number. Biological evaluation was conducted in 20 mechanism-based, in-vitro assays with an evaluation of biodata trends. Bioassay interfering agents such as polyphenolics and fatty acids were **chromatographically** localized and rapidly identified.

L8 ANSWER 19 OF 27 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2002124353 EMBASE

TITLE: Anti-elastase and anti-hyaluronidase of phenolic substance from Areca catechu as a new anti-ageing agent.

AUTHOR: Lee K.-K.; Cho J.-J.; Park E.-J.; Choi J.-D.

CORPORATE SOURCE: J.-D. Choi, Department of Biochemistry, Chungbuk National University, Cheong-Ju, Chungbuk 361-763, Korea, Republic of. dchoi@cbucc.chungbuk.ac.kr

SOURCE: International Journal of Cosmetic Science, (2001) 23/6 (341-346).
Refs: 16
ISSN: 0142-5463 CODEN: IJCMDW

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 013 Dermatology and Venereology
021 Developmental Biology and Teratology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English; French

AB We have previously **screened** 150 **medicinal plants** for the inhibition of elastase and found significant inhibitory effects of the **extracts** of Areca catechu L. on the ageing and inflammation of skin tissues. To isolate and identify the compounds having biological activity, they were further purified by each **fraction** of solvents, silica gel column **chromatography**, preparative TLC and reversed-phase HPLC. The peak in HPLC, which coincided with the inhibitory activity against elastase, was identified as a phenolic substance by using various colorimetric methods, UV and IR. IC(50) values of this phenolic substance were 26.9 .mu.g mL(-1) for porcine pancreatic elastase (PPE) and 60.8 .mu.g mL(-1) for human neutrophil elastase (HNE). This phenolic substance showed more potent activity than that of reference compounds, oleanolic acid (76.5 .mu.g mL(-1) for PPE, 219.2 .mu.g mL(-1) for HNE) and ursolic acid (31.0 .mu.g mL(-1) for PPE, 118.6 .mu.g mL(-1) for HNE). According to the Lineweaver-Burk plots, the inhibition against both PPE and HNE by this phenolic substance was competitive inhibition with the substrate. The phenolic substance from A. catechu effectively inhibited hyaluronidase activity (IC(50):210 .mu.g mL(-1)). These results suggest that the phenolic substance purified from A. catechu has an anti-ageing effect by protecting connective tissue proteins.

AB We have previously **screened** 150 **medicinal**